Cystatin C Mouse E. coli His

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Mouse
Other names: Post G-globulin, CST 3

Cat. nr.: RD272009100 (0.1 mg)

Description
Total 134 AA. Mw: 15 kDa (calculated). N-terminal His-tag, 14 extra AA (highlighted).

Introduction to the Molecule
Cystatin C is a non-glycosilated basic single-chain protein consisting of 120 amino acids with a molecular weight of 13.36 kDa and is characterized by two disulfide bonds in the carboxy-terminal region. It belongs to the cystatins superfamily which inactivates lysosomal cysteine proteinases, e.g. cathepsin B, H, K, L and S. Imbalance between Cystatin C and cysteine proteinases is associated with inflammation, renal failure, cancer, Alzheimer’s disease, multiple sclerosis and hereditary Cystatin C amyloid angiopathy. Its increased level has been found in patients with autoimmune diseases, with colorectal tumors and in patients on dialysis. Serum Cystatin C seems to be better marker of glomerular filtration rate than creatinine. On the other hand, low concentration of Cystatin C presents a risk factor for secondary cardiovascular events.

Research topic
Animal studies, Renal disease

Amino Acid Sequence
MRGSHHHHHH GMASATPKQG PRMLGAPEEA DANEEGVRRA LDFAVSEYNK GSNDAYHSRA IQVVRARKQL VAGVNYFLDV EMGRTTCTKS QTNLTDCEFH DQPHLMRKAL CSFQIYSVPW KGTHSLTKFS CKNA

Source
E. coli

Purity
>95%
**SDS-PAGE gel**

12% SDS-PAGE separation of Mouse Cystatin C

1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa
2. reduced and heated sample, 5µg/lane
3. non-reduced and non-heated sample, 5µg/lane

**Formulation**

Filtered (0.4 µm) and lyophilized in 0.5 mg/mL in 20mM Tris buffer, 50 mM NaCl, pH 7.5

**Reconstitution**

Add deionized water to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

**Storage, Stability/Shelf Life**

Store lyophilized protein at -20°C. Lyophilized protein remains stable until the expiry date when stored at -20°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after one week at 4°C.

**Quality Control Test**

BCA to determine quantity of the protein.
SDS PAGE to determine purity of the protein.

**Applications**

Western blotting

**Note**

This product is intended for research use only.

**References**

- Ono S. et al. *Increased cystatin C immunoreactivity in the skin in amyotrophic lateral sclerosis.*
